



“Speed Kills!”

Is this true and if yes, then what can we do about it?

Name: _____ Class: _____

Homework: See bottom of sheet

1. “It’s 30 for a reason.” How did this advert make you feel? _____

2. The two forms of energy that are relevant to motion are? _____

3. Use the shelves gizmo to find out about the two factors that affect potential

energy. _____

4. Use the roller coaster gizmo app to see what happens to the speed of different vehicles as the potential energy changes and how this is affected by the mass of the vehicle.

5. The equation to calculate kinetic energy is $K.E. = \frac{1}{2}mv^2$.

a. Write the equation in words:

b. Why does this help to understand why there are more pedestrian deaths on the road from collisions at 40mph than 30mph?

6. Write notes in your exercise book as you watch the video clips.

7. Use your notes from watching the various video clips, page 572 from the textbook (airbags) and any other information sources you choose to answer the question below. Write your response in your exercise book (or type and print.)

Question: What advice would you give your parents about buying and driving a car in order to keep the passengers and pedestrians safe?

Homework: Due dates: RO:11th Dec, BG:12th, YHig:17th Dec.

Finish off number 7. Then show a parent/guardian and discuss your advice with them. They need to sign next to your writing to acknowledge that you have shown it to them. Be prepared to explain your advice by using Newton’s Laws and ideas about energy.